

1

TOGETHER WE CAN GET THERE!

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Interviewing

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Director, Bootstrap Institute

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2

Doug Engelbart's Odyssey

3

BASIC BOOTSTRAP CONCEPTS

Objective: Pursue high-performance org
Hypothesis #1: Collab. Knowledge Work (CODIAK)
Hypothesis #2: Open Hyperdoc System (OHS)
Hypothesis #3: Whole-system Augmentation
Hypothesis #4: ABC's of Org Improvement
Hypothesis #5: Bootstrap Strategy
Hypothesis #6: C Community

4

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6

CODIAK:

Concurrent Development
Integration and Application of
Knowledge

7

EXAMPLE: KNOWLEDGE DOMAINS OF A MANUFACTURING ORG



8

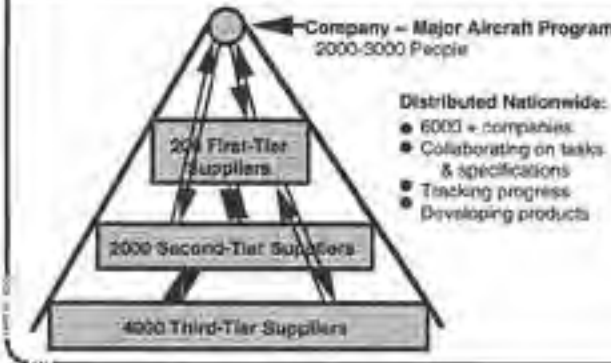
THE CODIAK PROCESS – COLLABORATIVE, DYNAMIC, CONTINUOUS



CODIAK: COncurrent Development, Integration, & Application of Knowledge.

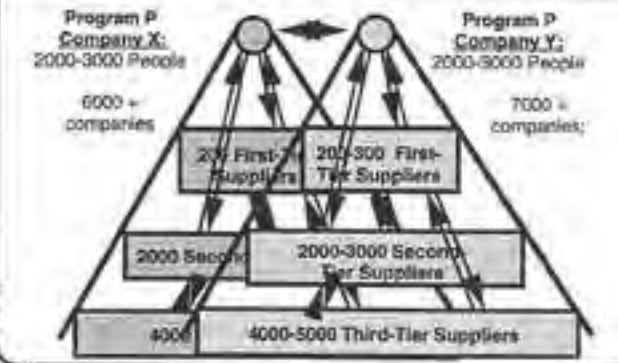
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ISLANDS IN SUPPLIER HIERARCHY OF A MAJOR AIRCRAFT PROGRAM WOULD BE VERY COSTLY



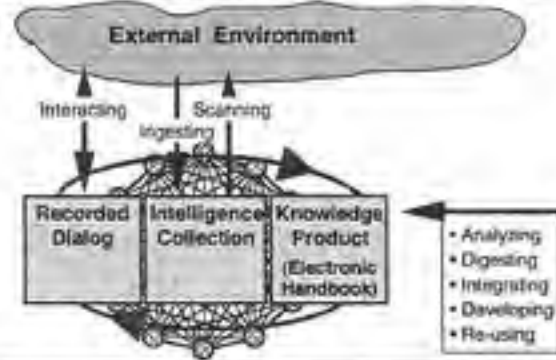
14

TEAMED AEROSPACE PROGRAM – IMMENSE DEMAND FOR KNOWLEDGE-WORK EXCHANGE



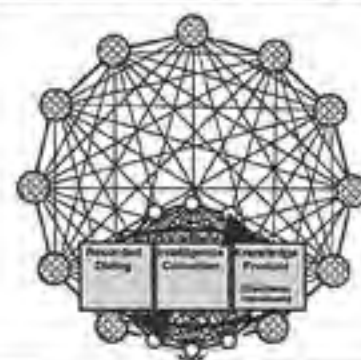
9

EVERY VIABLE ORGANIZATIONAL UNIT REQUIRES BASIC KNOWLEDGE PROCESSES



10

ORG UNIT'S CODIAK PROCESS NESTED WITHIN OTHER ORG EFFORTS



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The need for CODIAK interoperability will extend the scope of standards.

16

First beachhead for improving CODIAK capability: Hyperdocument Systems

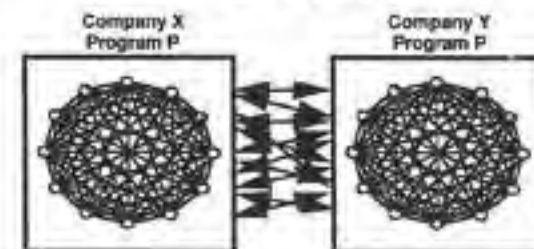
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Key Challenge:
Interoperability among
CODIAK domains

12

CLOSE COOPERATION BETWEEN LARGE ORGANIZATIONS PUTS NEW DEMANDS ON KNOWLEDGE-WORK INTERCHANGE

Two Aerospace Companies
required to do "Program Teaming"



17

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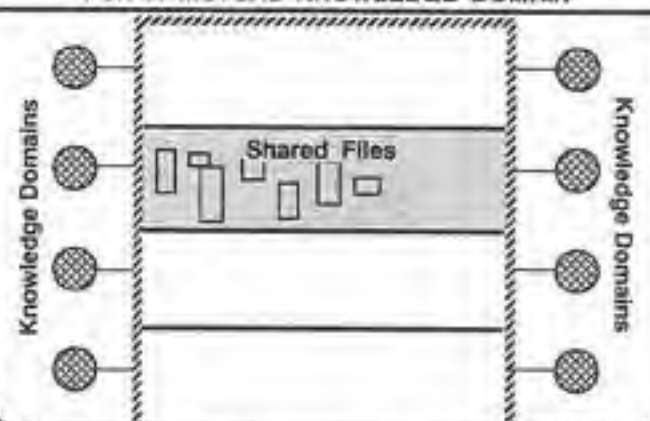
18

Essential Elements
of Open Hyperdocument
Systems

19

Shared On-line Filing

20

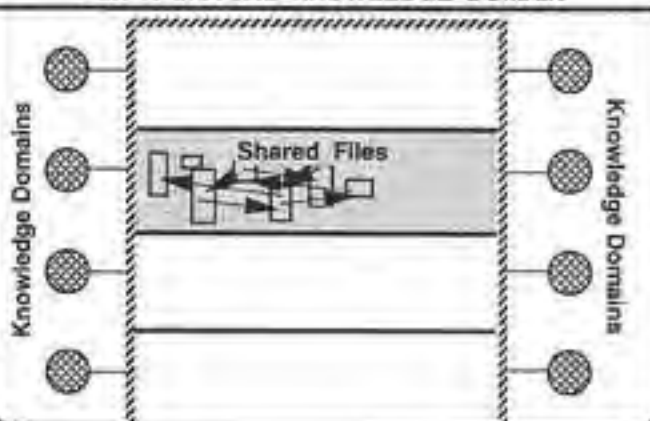
STAGE 1: SUPPORTING THE CODIAK PROCESS
FOR A MUTUAL KNOWLEDGE DOMAIN

A Knowledge Domain can be any knowledge-work environment -- for an individual, project, department, functional area, whole org, or community

21

Structuring, Linking
and Viewing

22

STAGE 2: SUPPORTING THE CODIAK PROCESS
FOR A MUTUAL KNOWLEDGE DOMAIN

25

VIEWS

7 CONTROLLING THE VIEWS

- 7a A user of a book, or of most on-line text
- 7b MULTIPLE WINDOWS
- 7c WINDOW VIEWS
- 7d USER-SPECIFIED SEQUENCE

VIEW: 2 levels; Numbers On; 1 line per statement; Blank lines.

26

VIEWS

7 CONTROLLING THE VIEWS

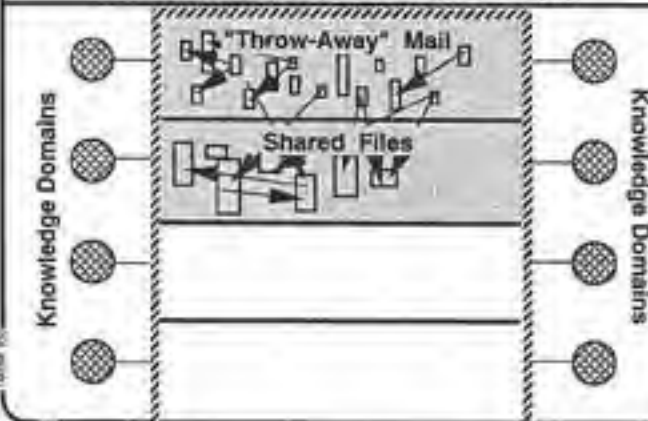
- 7a A user of a book, or of most on-line text
- 7b MULTIPLE WINDOWS
 - 7b1 For whatever total screen area is
 - 7b2 (Note: Cross-file editing can be
 - 7b3 User-adjustable parameters are
- 7c WINDOW VIEWS
 - 7c1 STRUCTURE CUTOFF. Show only
 - 7c2 LEVEL CLIPPING. For the
 - 7c3 STATEMENT TRUNCATION. For

VIEW: All levels; Numbers On; 1 line per statement; No blank lines.

27

Integrated Electronic Mail

28

STAGE 3: SUPPORTING THE CODIAK PROCESS
FOR A MUTUAL KNOWLEDGE DOMAIN

23

[Engelbart is showing page 9 of
"Authorship Provisions in Augment"
-- see last page of this handout.]

24

VIEWS

From "Authorship Provisions in Augment"

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next view >cabp<

7 CONTROLLING THE VIEWS

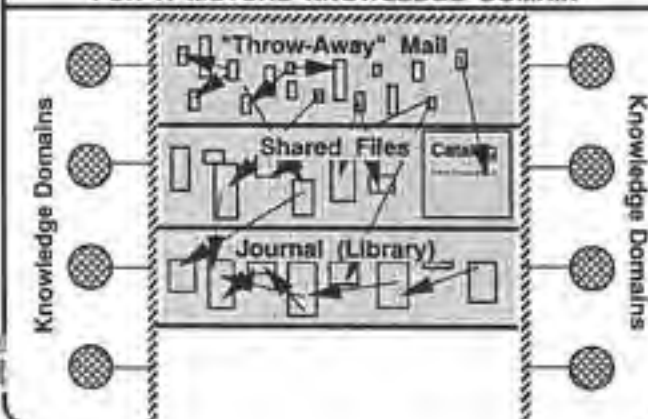
- 7a A user of a book, or of most on-line text systems, is constrained to viewing the text as though he had a window through which he sees a fixed, formatted document. But as described below, our worker can view a section of text in many ways, depending upon his need of the moment.

VIEW: All levels; Numbers On; All lines per statement; Blank lines.

29

A Journal System

30

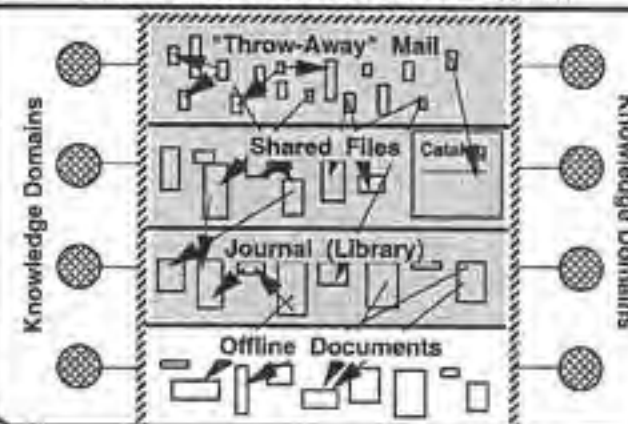
STAGE 4: SUPPORTING THE CODIAK PROCESS
FOR A MUTUAL KNOWLEDGE DOMAIN

31

Integrated External Document Management

32

STAGE 5: SUPPORTING THE CODIAK PROCESS FOR A MUTUAL KNOWLEDGE DOMAIN



33

Shared Screen Support

34

Common Evolving Vocabulary Among CODIAK Users

35

ESSENTIAL ELEMENTS OF AN OHS

- Mixed-object documents
- Explicitly structured documents
- View control of objects' form, sequence and content
- The basic "hyperdocument" capability
- Hyperdocument "back-link" capability
- Hyperdocument "library system"
- Hyperdocument mail
- Personal signature encryption
- Shared-window teleconferencing
- Inter-linkage between hyperdocuments and other data systems
- Link addresses that are readable and interpretable by humans
- Every object addressable
- Hard-copy print options to show addresses of objects and address specification of links
- External-document control
- Access control
- More

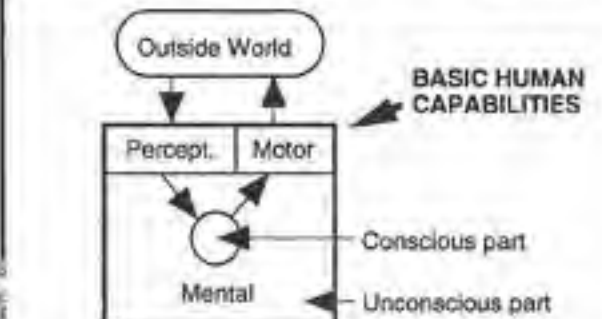
36

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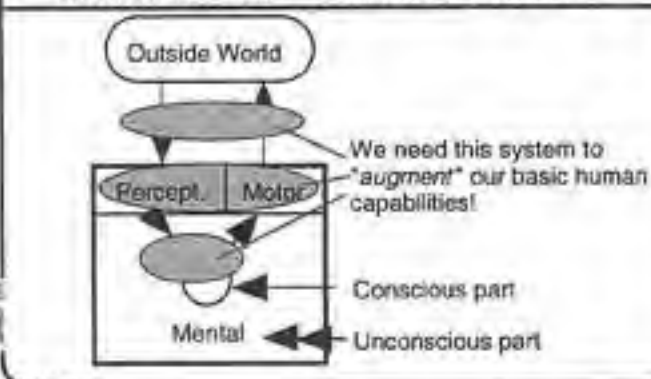
37

STARTING TO THINK ABOUT AUGMENTING THE KNOWLEDGE WORKER: BEGIN WITH BASICS



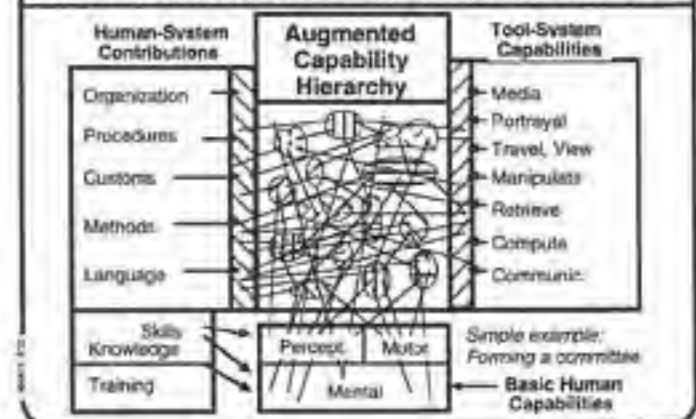
38

BUT OUR BARE MENTAL-MOTOR PERCEPTUAL MACHINERY CAN'T DO MUCH BY ITSELF -



39

OUR CAPABILITIES GROW HIERARCHICALLY - FOR BOTH INDIVIDUALS AND THEIR ORGANIZATIONS



40

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41

ABC's OF ORGANIZATIONAL IMPROVEMENT



How an organization explicitly improves its improvement capability.

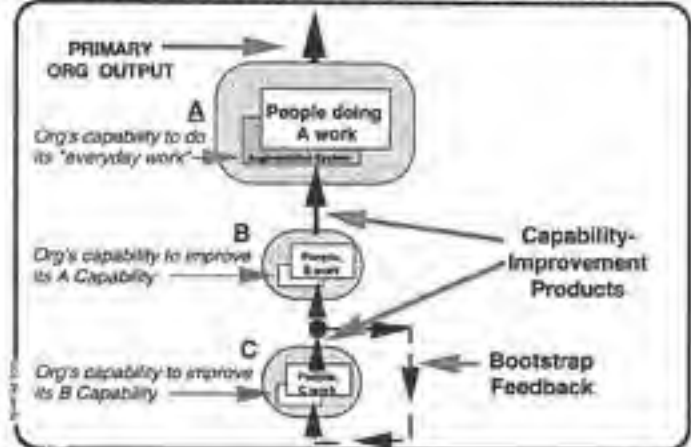
42

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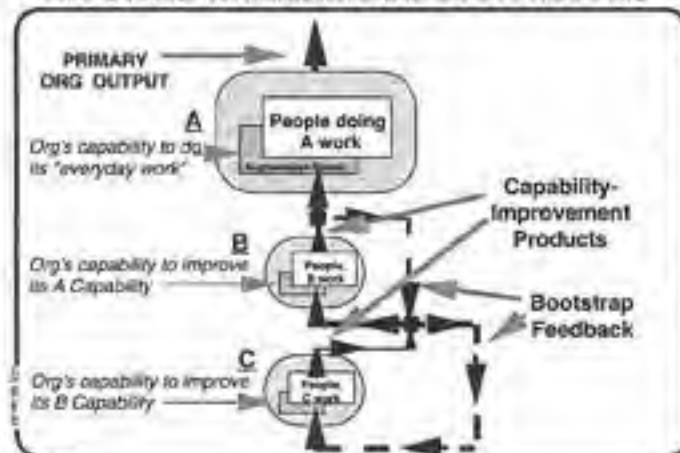
43

AN ORGANIZATION'S BOOTSTRAPPING PROCESS



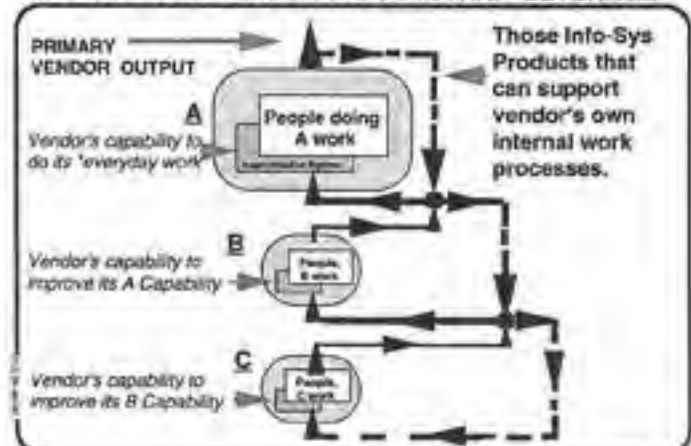
44

TWO-STAGE ORGANIZATIONAL BOOTSTRAPPING



45

AN INFO-SYS VENDOR'S BOOTSTRAP LEVERAGE



46

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47

THE C COMMUNITY AS AN ADVANCED PILOT

